

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Previously Presented): A workflow control method in a workflow system connected to a plurality of client computers for carrying out business procedures each comprising a plurality of related business processes, at least one of the business procedures being allowed to execute some of the related business processes concurrently, said workflow control method comprising the steps of:

previously defining in a definition table a start condition and a completion condition for each business process and an abnormal status change to be detected in related business processes capable of being executed concurrently with each other by said client computers;

detecting an occurrence of said abnormal status change in one of the plurality of related business processes based on said definition table;

selecting at least one user who has been already ordered to execute an interdependent business process having a start condition identical to that of the business process in which the abnormal status change was detected or to a completion condition of a business process executed concurrently with the business process in which said abnormal status change was detected; and

notifying a client computer corresponding to the selected user of the occurrence of abnormality in the related business process so as to prevent the selected user from completing the interdependent business process.

Claim 2 (Previously Presented): The workflow control method according to claim 1, wherein the abnormal status change in one of the business processes to be detected includes a discontinuance of the one of the business processes.

Claim 3 (Canceled):

Claim 4 (Previously Presented): The workflow control method according to claim 1, wherein the selection of at least one user is carried out by referring rules defining the relation between predetermined business procedures and related client computers.

Claim 5 (Previously Presented): A workflow system connected to a plurality of client computers for executing business procedures each including a plurality of related business processes, at least one of the business procedures being allowed to execute some of the related business processes concurrently, comprising:

a definition table for defining a start condition and a completion condition for each business process and an abnormal status change to be detected in related business processes capable of being executed concurrently;

a status watcher for detecting a status change in a business process being executed, including an occurrence of an abnormal status change defined in said definition table;

a workflow engine connected to the status watcher, for controlling the execution of each of the business procedures based on the status change detected by the status watcher and predetermined business procedure definitions; and

a notifier for notifying at least one of the client computers of the occurrence of the abnormal status change detected by the status watcher, when the user of the client computer has been already ordered to execute an interdependent business process having a start condition identical to that of the business process in which the abnormal status change was detected or to a completion condition of a business process executed concurrently with the business process in which the abnormal status change was detected, so as to prevent the user from completing the interdependent business process.

Claim 6 (Previously Presented): The workflow system according to claim 5, wherein the status watcher detects a discontinuance of the business process as said abnormal status change.

Claim 7 (Canceled):

Claim 8 (Previously Presented): The workflow system according to claim 5, further comprising a resource selector for receiving an instruction and an identifier of the business process on which the abnormal status change was detected from the workflow engine, and selecting the client computer to be notified of said abnormal status change by referring predetermined rules previously defining the relation

between predetermined business procedures and client computers, thereby to designate the client computer to said notifier.

Claim 9 (Previously Presented): A storage medium comprising instructions that, when executed by a computer, perform a workflow control method in a workflow system connected to a plurality of client computers for carrying out business procedures each comprising a plurality of related business processes, at least one of the business procedures being allowed to execute some of the related business processes concurrently, said workflow control method comprising:

previously defining in a definition table a start condition and a completion condition for each business process and an abnormal status change to be detected in related business processes capable of being executed concurrently with each other by the client computers;

detecting an occurrence of said abnormal status change in one of the plurality of related business processes based on said definition table;

selecting at least one user who has been already ordered to execute an interdependent business process having a start condition identical to that of the business process in which the abnormal status change was detected or to a completion condition of a business process executed concurrently with the business process in which said abnormal status change was detected; and

notifying a client computer corresponding to the selected user of the occurrence of abnormality in the related business process so as to prevent the selected user from completing the interdependent business process.

Claim 10 (Previously Presented): The workflow system according to claim 8, wherein the status watcher, the workflow engine, the notifier and the resource selector are individual programs executed concurrently to control the execution of each of the business procedures.

Claim 11 (Previously Presented): The workflow system according to claim 8, further comprising:

an exception handler unit for creating attributes to handle the abnormal status change detected by the status watcher; and

a user retrieval unit for selecting the user of the client computer in charge of a business process interdependent to the business process in which the abnormal status change was detected by the status watcher.

Claim 12 (Previously Presented): A workflow management system for controlling an order of execution of business procedures each including a plurality of related business processes and at least one business procedure being allowed to execute some of the related business processes concurrently, said workflow management system comprising:

a client application to be executed by one or more client computers;

a server application to be executed by a server computer for communicating with the client application;

an application database for storing data for the server application;

a definition table for defining a start condition and a completion condition for each business process and abnormal status changes including a discontinuance in a

business process to be detected in related business processes capable of being executed concurrently;

 a status watcher for detecting a status change in a business process being stored in the application database, including an occurrence of an abnormal status change defined in said definition table;

 a workflow engine for controlling the execution of each of the business procedures based on the status change detected by the status watcher and predetermined business procedure definitions; and

 a notifier for notifying the occurrence of a discontinuance in the business process to at least one of the client computers, when a user of the at least one client computer has been already ordered to execute an interdependent business process having a start condition identical to that of the business process in which the discontinuance was detected or to a completion condition of a business process executed concurrently with the business process in which the abnormal status change was detected, so as to prevent the user from completing the interdependent business process.

Claim 13 (Previously Presented): The workflow management system according to claim 12, further comprising a resource selector for receiving an instruction and an identifier of the business process on which the discontinuance was detected from the workflow engine, and selecting the client computer to be notified of the discontinuance by referring predetermined rules previously defining the relation between predetermined business procedures and client computers.

Claim 14 (Previously Presented): The workflow management system according to claim 12, wherein the status watcher, the workflow engine, the notifier and the resource selector are individual programs executed concurrently to control the execution of each of the business procedures.

Claim 15 (Previously Presented): The workflow management system according to claim 12, further comprising:

an exception handler unit for creating attributes to handle the discontinuance of the business process detected by the status watcher; and

a user retrieval unit for selecting the user of the client computer who has been already ordered to execute a business process interdependent to the business process in which the discontinuance was detected by the status watcher.

Claim 16 (Previously Presented): The workflow management system according to claim 15, wherein the user selection is made by referring rules defining the relation between predetermined business procedures and client computers.

Claim 17 (Previously Presented): A workflow management system connected to a plurality of client computers for controlling an order of execution of business procedures each including a plurality of related business processes and at least one business procedure being allowed to execute some of the related business processes concurrently, said workflow management system comprising:

means for defining a start condition and a completion condition for each business process and abnormal status changes including a discontinuance in a

business process to be detected in related business processes capable of being executed concurrently with each other by the client computers;

 a status watcher configured to detect a status change in a business process being executed, including an occurrence of a discontinuance in a business process defined as an abnormal status change;

 a workflow engine configured to control the execution of each of the business procedures based on the status change detected by the status watcher and predetermined business procedure definitions; and

 a notifier configured to notify the occurrence of a discontinuance in the business process to at least one of the client computers, when a user of the at least one client computer has been already ordered to execute an interdependent business process having a start condition identical to that of the business process in which the discontinuance was detected or to a completion condition of a business process executed concurrently with the business process in which the abnormal status change was detected, so as to prevent the user from completing the interdependent business process.

Claim 18 (Previously Presented): The workflow management system according to claim 17, further comprising a resource selector configured to receive an instruction and an identifier of the business process on which the discontinuance was detected from the workflow engine, and select the client computer to be notified of the discontinuance by referring predetermined rules previously defining the relation between predetermined business procedures and client computers.

Claim 19 (Previously Presented): The workflow management system according to claim 18, wherein the status watcher, the workflow engine, the notifier and the resource selector are individual programs executed concurrently to control the execution of each of the business procedures.

Claim 20 (Previously Presented): The workflow management system according to claim 17, further comprising:

an exception handler unit configured to create attributes to handle the discontinuance of the business process detected by the status watcher; and

a user retrieval unit configured to select the user of the client computer who has been already ordered to execute a business process interdependent to the business process in which the discontinuance was detected by the status watcher.